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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/413,738	10/06/1999	KENNETH M. BUCKLAND	062891.0338	2364

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EXAMINER

LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/413,738

Applicant(s)

BUCKLAND ET AL.

Examiner

Timothy Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-10, 12-17, 19-25, and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naohiro (US 6,317,414) in view of Bobey et al. (US 4,736,465).

3. Regarding claims 1, 8, 9, 13, 16, 23, 24, 31, and 32, Naohiro discloses a signal switching method and apparatus configured to operate in an ATM network (ATM network). See col. 5, lines 11-15, and also Fig. 1. From Fig. 1, it can be seen that the network contains a plurality of paths, VP1 and VP2, that end in a common destination (plurality of paths to a common destination). The signal 5-1 enters the network at Node 1. The node distributes identical copies down paths VP1 and VP2 (plurality of copies). Node 3 has detection sections 5-6 and 5-5, which receives traffic from VP2 and VP1, respectively (receiving ATM traffic from a traffic source, each one of the paths having a receive circuit). See also col. 6, lines 41-57. The selector 5-7 selects the virtual path input that will continue on to 5-8, so that only one qualified copy is switched and passed through the system. Figs. 4-9 support the fact only one qualified copy of traffic chosen to be sent through the ATM switch. For example, in Fig. 4, the signal originates in node 1-22 and its destination is node 9, where the selector is located. Nodes 2, 3, 4, 7, and 8 act as intermediary nodes, very similarly to how node 16 of Fig. 1 in the application acts as an intermediary node. After reaching the selector, only one qualified copy of traffic is allowed to

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continue to 1-27. As can be seen in Fig. 1, an ATM switch can be construed as being selector 5-7, and the switch only connects to one of the paths at a given time (configuring an ATM switch to provide a route to a common destination). See Fig. 1, and col. 6, lines 41-57. The selector chooses the correct virtual path by selecting a signal closer to normality out of the plurality of signals (determining a qualified copy of the traffic). See part (e) of claim 1. Naohiro does not expressly disclose discarding the copy of traffic that is not chosen. Bobey et al. discloses discarding the duplicate copy of traffic if it isn't as qualified as the other copy of traffic that arrives at a destination. See Fig. 1, and col. 5, lines 10-28. It would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the discarding of the unqualified copy of traffic taught by Bobey et al. in the system disclosed by Naohiro. One would have been motivated to do this because these unqualified copies are no longer needed in the system.

4. Regarding claim 9, it would have been obvious to have the AIS detecting sections act as receive circuits, where the receive circuits communicate determine if an AIS signal has been received and discard the an unqualified copy of traffic in way that Bobey et al. discloses discarding a packet. One of ordinary skill in the art would have been motivated to do this for the same reasons as stated above—the system must deal with the unqualified copy of traffic somehow, so discarding it seems like a logical solution.

5. Regarding claim 16, if the unqualified packet is discarded as mentioned previously, then only the qualified copy will reach the switch.

6. Regarding claims 2, 4, 10, 14, 17, 19, 25, 27 and 29, Naohiro discloses that an Alarm Indicating Signal can be inserted into the virtual path to indicate if a failure occurs, and this

information can be used by the detecting sections to determine which path is selected (determining comprises receiving management cells on a path indication AIS, LOC, or BER, and receive circuit is operable to receive management traffic on a path indication degradation or loss of signal). See Fig. 1, and col. 6, lines 41-57.

7. Regarding claims 5, 6, 12, 20, 21 and 28, the AIS is qualifying information that tells the detecting sections and the selector which of VP should be switched through and which should be discarded at the receive circuits. In order for the receive circuits to know which VP should be discarded, the receive circuits must somehow communicate with each other. See Fig. 1, and col. 6, lines 41-57.

8. Regarding claims 7, 15, 22 and 30, Fig. 1 discloses a ring where the path 5-2 travels in a clockwise direction and path 5-3 travels in a counterclockwise direction around the ring (wherein the paths comprise a first in a first direction around a SONET UPSR and a second path in a second direction around the SONET UPSR).

9. Claims 3, 11, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naohiro in view of Bobey et al. in further view of Rubino et al. (US 6,424,629). Claims 3, 11, and 18 are dependent on claims 1, 9 and 16, respectively, so the rejections made to those claims also apply here. Naohiro does not expressly disclose using a keep-alive signal to determine a qualified copy of traffic. Rubino et al. discloses detecting periodic keep-alive messages to indicate that the channel is still active. It would have been obvious to a person of ordinary skill in the art at the time of the invention to add a keep-alive signal into the signal switching that Naohiro discloses. One of ordinary skill in the art would have been motivated to do this because

using a keep-alive signal is just another way of detecting the quality of a path and thus determining which signal would be more qualified.

Response to Arguments

10. Applicant's arguments filed June 27, 2003 have been fully considered but they are not persuasive. In response to the applicant's argument that the Examiner is mischaracterizing the language of claim 1, the Examiner respectfully disagrees. The Examiner contends that Naohiro does teach that only the qualified copy of traffic passes through the ATM switch. To reiterate what was already stated in the rejection, the ATM switch from the application can be viewed as equivalent to the VP switch 5-7 found in Fig. 1. As is shown by the figure, only *one* of the two copies of traffic passes through the switch and onto path 5-8. Therefore, Naohiro discloses that only "the qualified copy is passed to the ATM switch".

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Naohiro does not expressly disclose what happens to the copy of traffic that is not chosen, so it would have been obvious to a person of ordinary skill in the art to combine the teachings found in Bobey et al. with the system disclosed by Naohiro. One would have been motivated to this because the second piece of data is no longer needed.

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12. In response to applicant's argument that Bobey et al. does not teach of discarding such that "only one the qualified copy is passed to the ATM switch", the Examiner respectfully disagrees and contends that Bobey et al. does disclose the deficiency of Naohiro. It is true that the node in Bobey et al. receives two copies of traffic, but the claim says nothing about a node receiving or not receiving two copies of traffic. In fact, in Fig. 2 of the application, node 18 also receives two copies of traffic. Specifically, Bobey et al. states the following: "In general, each node will receive two copies of each packet, one via each of its two receive ports, and will discard the duplicate packet which arrives last." See col. 5, lines 23-26. Therefore, Bobey et al. does teach of discarding of an unqualified copy of traffic.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703)305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

TLL



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